

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An electro-optical device, comprising:
a plurality of pixels, each of the plurality of pixels having an electro-optical element, brightness of each of the electro-optical elements being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, ~~and the plurality of sub-frames including at least two sub-frames having the same period of length; and~~
a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames.
2. (Currently Amended) The electro-optical device according to Claim 1,
~~the at least two sub-frames having the longest period among the plurality of sub-frames~~the sum of the period of the at least two allocated sub-frames being set to 2^n times as long as a sub-frame having a shortest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames.
3. (Currently Amended) The electro-optical device according to Claim 2,
a sub-frame having ~~the a~~ longest period among the plurality of ~~sub-frames sub-frames,~~ excluding the at least two allocated sub-frames, ~~sub-frames~~ being half as long as the ~~sub-frames sub-frame~~ having the longest period among the plurality of sub-frames.
4. (Currently Amended) The electro-optical device according to Claim 1,
~~the at least two~~ allocated sub-frames not being arranged consecutively in one frame of a period.
5. (Currently Amended) An electro-optical device, comprising:
a plurality of pixels, each of the plurality of pixels having an electro-optical element, brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, and lengths of the plurality of sub-frames excluding ~~two sub-frames~~ a sub-frame having ~~the a~~ longest period being set to a period in binary weighted; and

the sub-frame having the longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames.

6. (Currently Amended) The electro-optical device according to Claim 5, the two allocated sub-frames ~~having the longest period~~ not being arranged consecutively in one frame of a period.

7. (Currently Amended) An electro-optical device, comprising:
a plurality of pixels, each of the plurality of pixels having an electro-optical element, brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, ~~so that at least two levels of brightness can be set for one frame, and~~

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames, being disposed between the at least two allocated sub-frames, and

a sub-frame having the a longest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames sub-frames, excluding the at least two allocated sub-frames having the longest period, sub-frames, being set to $2n-1$ times as long as a sub-frame having the a shortest period among the n sub-frames sub-frames, and

brightness for the one frame can be set to 2^{n+1} levels, and levels.

8. (Currently Amended) The electro-optical device according to Claim 7, the two allocated sub-frames ~~having the longest period~~ not being arranged consecutively in one frame of a period.

9-10. (Cancelled)

11. (Currently Amended) An electro-optical device, comprising:
a plurality of pixels, each of the plurality of pixels having an electro-optical element, brightness of the electro-optical element being set for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, so that at least $2n-2^n$ (n denotes a natural number) levels of brightness can be set for one frame, and

a number of the plurality of sub-frames being n + 1 or more, and

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of

sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames.

12. (Currently Amended) The electro-optical device according to Claim 11, a sub-frame having ~~the~~ a longest period among the plurality of ~~sub-frames~~ sub-frames, excluding the at least two allocated sub-frames, being 2^{n-1} ~~2n-1~~ times as long as a sub-frame having ~~the~~ a shortest period.

13. (Currently Amended) An electro-optical device, which is capable of setting at least two levels of brightness for one frame, the electro-optical device comprising:

electro-optical elements that are controlled to take either an ON state or an OFF state based on gray scale data for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, and at least two of the plurality of sub-frames being controlled to always concurrently take either the ON state or the OFF state; and

a sub-frame having a longest period among the plurality of sub-frames being divided into at least two allocated sub-frames, and at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames being disposed between the at least two allocated sub-frames.

14. (Currently Amended) The electro-optical device according to Claim 13, the at least two allocated sub-frames having the same period of length.

15. (Currently Amended) The electro-optical device according to Claim 13, the at least two allocated sub-frames not being arranged consecutively in one frame of a period.

16. (Original) The electro-optical device according to Claim 1, the plurality of sub-frames, which are set for a series of pixels among the plurality of pixels, the series of pixels being connected to one scanning line, starting and ending substantially simultaneously.

17. (Original) The electro-optical device according to Claim 1, the plurality of sub-frames, which are set for a series of pixels among the plurality of pixels, the series of pixels being connected to at least two scanning lines, ending substantially simultaneously.

18. (Original) The electro-optical device according to Claim 16, further comprising pixel circuits, each of the pixel circuits including:

a first transistor put into a conductive state when the scanning line thereof is selected;

a capacitor element holding a data signal supplied through the first transistor;

a second transistor switched to an ON state or an OFF state based on the data signal held in the capacitor element; and

an electronic element to which a driving current is supplied based on the ON state of the second transistor.

19. (Original) The electro-optical device according to Claim 18, the electronic element being a current-driven element.

20. (Original) The electro-optical device according to Claim 19, the current-driven element being an EL element.

21. (Original) The electro-optical device according to Claim 20, the EL element having a light-emitting layer formed of an organic material.

22. (Currently Amended) A method of driving an electro-optical device that includes a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, ~~the plurality of sub-frame including at least two sub-frames having the same period of length; and~~

~~when the at least two sub-frames are set, arranging the at least two sub-frames so as not to be adjacent to each other;~~

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames, and

disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames.

23. (Currently Amended) A method of driving an electro-optical device that includes a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames, which constitute one frame of period and each have a predetermined period, so that at least two levels of brightness can be set for one frame, lengths of the plurality of sub-frames

~~excluding two sub-frames a sub-frame having the a longest period being set in binary load; and load,~~

~~when the two sub-frames are set, arranging the two sub-frames so as not to be adjacent to each other;~~

~~dividing the sub-frame having the longest period among the plurality of sub-frames into at least two allocated sub-frames, and~~

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames.~~

24. (Currently Amended) A method of driving an electro-optical device that includes a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical elements for each of a plurality of sub-frames, which constitute one frame of period and each have a predetermined period, ~~so that at least two levels of brightness can be set for one frame,~~

~~dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,~~

~~disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames,~~

~~setting a sub-frame having the a longest period among n (n denotes a natural number) sub-frames of the plurality of sub-frames sub-frames, excluding the at least two allocated sub-frames sub-frames, having the longest period, being set to 2^{n-1} 2n-1-times as long as a sub-frame having the a shortest period of the n sub-frames; and, and~~

~~when the two sub-frames are set, arranging the two sub-frames so as not to be adjacent to each other, and~~

~~setting brightness for one frame being set to 2^{n+1} 2n+1 levels; and levels.~~

25. (Cancelled)

26. (Currently Amended) A method of driving an electro-optical device that includes a plurality of pixels, each of the plurality of pixels having an electro-optical element, the method comprising:

setting brightness of the electro-optical element for each of a plurality of sub-frames, which constitute one frame of a period and each have a predetermined period, so that at least $2n-2^n$ (n denotes a natural number) levels of brightness are set for one frame with the number of the plurality of sub-frames being n + 1 or more;

dividing a sub-frame having a longest period among the plurality of sub-frames into at least two allocated sub-frames,

disposing at least a sub-frame among the plurality of sub-frames having a period shorter than the allocated sub-frames between the at least two allocated sub-frames,

always concurrently putting ~~predetermined~~ the at least two allocated sub-frames into a set state or a non-set state, the number of the plurality of sub-frames being $n + 1$ or more; and state, and

when being in the set state, arranging the two sub-frames so as not to be adjacent to each other, and setting brightness for one frame being settable to $2^n - 2^n$ levels; levels.

27. (Original) The method of driving an electro-optical device according to Claim 22,

the plurality of sub-frames, which are set for a series of pixels among the plurality of pixels, the series of pixels being connected to one scanning line, starting and ending substantially simultaneously.

28. (Original) The method of driving an electro-optical device according to Claim 22,

the plurality of sub-frames, which are set for a series of pixels among the plurality of pixels, the series of pixels being connected to at least two scanning lines, ending substantially simultaneously.

29. (Original) The method of driving an electro-optical device according to Claim 27, the electro-optical device including pixel circuits, each of the pixel circuits including:

a first transistor put into a conductive state when the scanning line thereof is selected;

a capacitor element holding a data signal supplied through the first transistor;

a second transistor controlled to take an ON state or an OFF state based on the data signal held in the capacitor element; and

an electronic element to which a driving current is supplied based on the ON state of the second transistor.

30. (Original) An electronic apparatus, comprising:

the electro-optical device according to Claim 1.